Mediation Analysis In Chains Of Restaurants In Tamilnadu State

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ABSTRACT: The focal area of this paper is towards identifying the factors affecting the relationship quality and to identify the impact of relationship quality on customer satisfaction and customer trust and in turn leading to customer loyalty. On reviewing the literature and various models proved by experts there are five factors which form the relationship quality. This has been depicted in the questionnaire with various items. The data have been collected from four chains of restaurants and a multi group analysis have been conducted to know if the same factors behave the same in all the chains of restaurants.

KEY WORDS: Customer |Loyalty, Customer Satisfaction, Customer Trust, Food Quality, Price, Location, Word of Mouth, Service Quality.

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I. INTRODUCTION

Most developed countries with strong economies are dominated by the service sector, which accounts for more than 70% of their GDP. India was ranked 13th in the services output [1] in the year 2014, with the dominant presence of hospitality sector. In hospitality sector, the presence of strong hotel industry marks the growing economy of our country. The expansion of hotels can become an indicator of the growth of other sectors. On the other hand, both, husband and wife employment require the need of good quality hotels as they may not have sufficient time to prepare food. In this current scenario, an individual hotels started proliferation as chains of restaurants. The aim of these chains of restaurants is to provide quality food with taste, consistently.

Nevertheless, the challenge for the chains of restaurants is customer attraction and need to retain customers; these restaurants further need to strive for customer loyalty. [2, 3] Positive word of mouth is required to retain the customer base and to achieve customer loyalty. The standardization of services in chains of restaurants are challenging task as human element involvement is high and meeting out tough competition. With this backdrop, it is proposed to study the customer loyalty for the chains of restaurants that are based in Tamil Nadu. This study aims to develop a model to study the predictors of customer loyalty.

II. OBJECTIVES OF THE STUDY

The objectives of the study are framed keeping in mind the theoretical contribution that addresses the research gap in chains of restaurants. The proposed research work has the following specific objectives.

1) To analyse the effect of customer eating habit in relationship with relationship quality in chains of restaurants.

2) To evaluate the effect of relationship quality on customer loyalty in chains of restaurants.

Problem Statement

Customer loyalty needs to be achieved by the service provider for their existence and to maintain their market share. [2] To serve an old customer, it costs less in comparison to the acquisition of new customers. [4] It was empirically proved that the loyal customers expected a lower level of service assurance because the trust towards the service provider is higher when compared to non-satisfied customers. [5] The food industry is highly competitive in nature to retain the customers. The market is cluttered with too many competitors catering to every income group of customers. [4]

The work of Sunghyup Sean Hyun, 2010 check whether the inline citation demonstrates the factors responsible for creating customer satisfaction and building customer trust can further lead to customer loyalty. [4] The work done by Sunghyup Sean Hyun was done in University of Virginia, the same is being considered for the chains of restaurants in Tamil Nadu State. This study has taken the data from four different chains of restaurants and a multigroup study is being attempted.

III. LITERATURE REVIEW

Parasuraman and Zeithaml quote quality is an elusive and indistinct construct. [6] Quality has been variously defined as a value, excellence, conformance to specifications, conformance to requirements, fitness for use and meeting and exceeding customer's expectations and user satisfaction [Crosby 1979; Deming 1982; Juran 1974, 1982]. Parasuraman, Zeithaml and Berry (1985) have defined service quality as "outcome quality", wherein references has been made about the type of services that are delivered? [7] Christian Gronroos (1984) has defined service quality as "technical quality", which focuses on, how the service is delivered? [8]

Based on Gronroos model the researcher Sunghyup Sean Hyun (2010) has formulated a model wherein the behavioural variables like food quality, service quality, price, location, and environment are variables that are said to lead to relationship quality. The relationship quality is measured using customer satisfaction and trust. [4]

Satisfaction is a major outcome of marketing activity and services to link processes culminating in purchase and consumption with post purchase phenomena such as attitude change, repeat purchase and brand loyalty. [9] Ruth N Bolton and James Drew, in their study, have proved that customer satisfaction or dissatisfaction is a function of disconfirmation arising out of the gap between prior expectations and actual performance. [10] The aspect of service quality has been discussed in the research paper proposition of survival to meet and exceed by Jay Kandampalli (1998). [11] Customer satisfaction is an important measure in restaurants, for its growth. Small firms need to customize their service delivery catering to the different needs of the customers. [2]

In a study conducted in Iran, on time service delivery had shown importance towards the service quality. [12] To improve the service quality of a service sector, the service delivery process needs to be perfect to match the perception of the customers. [13] To achieve customer satisfaction, framing and implementing proper service quality is mandatory. [14] In the study conducted in 2010, it has been proved that even if R square value seemed to be low, if the responsiveness of the employees of the service organization is good then the overall satisfaction increases. [15]

Young Namkung and Soo Cheong Jang (2007) have empirically established that the food quality is an important aspect to improve customer satisfaction. The quality is defined by the food taste and presentation which were the major contributors towards achieving customer satisfaction. [16]

Previous research of Lars Gronholdt, Martensen and Kristensen (2010) has established the relationship between the food quality and the satisfaction of customers. [17]

It is empirically shown that the service quality is assessed using performance-based measures. One of the outcomes of this study is that the intangible aspects of the staff- customer interface have more significant effects, both negative and positive on customer satisfaction. [18] The researchers have proved empirically that with the improvement of service quality the customer satisfaction also improves. [19] This conceptual paper by Mohammad Rahmman, Abdul Khan and Md. Haque (2012) suggest the relationship between the service quality and customer satisfaction have been taken the area of concern. No single attribute can directly lead to the satisfaction. The customer satisfaction, in turn, will lead to customer loyalty. [20]

HYPOTHESES FRAMEWORK

This study developed the model proposed by Sunghyup Sean Hyun, in his research paper proposed in the year 2010. [4] An attempt was made to study the behavioural pattern of customers of Tamil Nadu, India in chains of restaurants.

The model is tested with the patrons of chains of restaurants in Tamil Nadu.

Customer loyalty is the main area of concern in a service sector and this is especially true in food industry. The loyalty is the factor which can be inferred from the customer satisfaction.

H1: The Food quality positively influences the customer satisfaction.

H2: The Service quality positively influences the customer satisfaction.

H3: The Price of the food items positively influences the customer satisfaction

H4: The location of the restaurant positively influences the customer satisfaction.

H5: The service environment positively influences the customer satisfaction.

H6: The food quality positively influences the trust.

H7: The service quality positively influences the trust.

H8: The price positively influences the trust.

H9: The customer satisfaction positively influences trust.

H10: The customer satisfaction positively influences the customer loyalty.

H11: The customer trust positively influences the customer loyalty.



IV. PROPOSED MODEL OF THE STUDY

Figure 1

V. MAJOR CONTRIBUTIONS

Measurement Assessment

The model hypotheses have eight constructs which each has 36 items. All the constructs were adopted from the previous studies and were well-established scales. The response format used to measure is a 5 point Likert scale with 1 = strongly disagree and 5=strongly agree. The content validity was assessed by three domain experts. Few questions were rephrased without affecting the core meaning, to suit the Indian culture and tested. The reliability and validity were evaluated, and certain constructs have low reliability. The questionnaire is again changed and administered. The questionnaire is administered to the customers using pencil and paper approach after getting service from the hotel. A pilot study was conducted to study the instrument with 50 samples. The results of the pilot study are

acceptable and thus made way for large-scale study. The total sample collected to estimate the model empirically is 593. As expected, there are missing data issues, which was less than 1 %. The missing data is imputed by the method of "mean imputation" using SPSS 21.

The case-wise deletion has been done for seven cases as the number of questions unanswered was around 50%. After the missing data, the outliers were removed to enhance the quality of data. The descriptive statistics generated in this study are mean, standard deviation, skewness and kurtosis. Once the Univariate analysis is completed, the bivariate analyses like zero order correlation were computed. The analysis method proposed is Structural Equation Modelling (SEM), and the analysis is carried out for measurement and then structural model as suggested by Anderson and Gerbing (1988). [21]

Descriptive Statistics

From the Table 1, The mean, standard deviation, kurtosis and skewness were estimated as discussed. The maximum skewness observed is -1.458 and the minimum skewness is -0.037. The skewness value obtained does not pose much issue, as they value below to the range of +/-2. This can be inferred that the data does not the issue of non-normality.

The existence of Univariate normality in the data does not ensure a multivariate normality and above that, the multivariate statistical tool proposed is Partial Least Square Structural Equation Modelling (PLS-SEM) which is suitable for non-normal data. The maximum kurtosis value obtained is 1.490, and the minimum is -0.066 and the peakedness of the distribution (Kurtosis) do not pose the problem, as the range is within the interval of +/-2. The mean values of the measures are above three except one; suggest that the respondents have taken position on the questions.

licina	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosia
Food Quality1	1	5	4.30	1.037	-1.458	1.296
Food Quality2	1	5	4.10	0.873	-1.104	1.490
Food Quality 3	1	5	3.89	0.894	-0.617	0.262
Food Quality 4	1	5	3.98	0.833	-0.968	1.541
Food Quality 5	1	5	4.03	0.840	-0.892	1.038
Food Quality 6	1	5	4.01	0.750	-0.887	1.685
Service Quality 1	1	5	3.59	1.015	-0.111	-0.818
Service Quality 2	1	5	3.59	0.805	-0.301	0.126
Service Quality 3	1	5	3.55	0.888	-0.253	-0.087
Service Quality 4	1	5	3.68	0.791	-0.482	0.638
Service Quality 5	1	5	3.63	0.829	-0.392	0.248
Service Quality 6	1	5	3.71	0.741	-0.684	1.175
Environmenti	1	5	3.90	1.007	-0.590	-0.486
Environment2	1	5	3.79	0.796	-0.574	0.718
Environment3	1	5	3.72	0.880	-0.286	-0.250
Environment4	1	5	3.81	0.799	-0.606	0.354
latisfaction 1	1	5	3.87	1.131	-0.587	-0.813
Satisfaction 2	1	5	3.79	0.790	-0.507	0.341
Satisfaction 3	1	5	3.60	0.837	-0.019	-0.260
Satisfaction 4	1	5	3.79	0.755	-0.779	1.351
Truati	1	5	3.49	1.032	-0.193	-0.541
Inust2	1	5	3.59	0.868	-0.484	0.301
Inust3	1	5	3.69	0.905	-0.427	-0.067
Inust4	1	5	3.71	0.838	-0.689	0.459
Loyaltyi	1	5	3.23	1.275	-0.135	-1.010
Loyalty2	1	5	3.21	1.076	-0.290	-0.585
Loyalty3	1	5	3.12	1.090	-0.319	-0.591
Loyalty4	1	5	3.24	1.084	-0.579	-0.502
Price1	1	5	4.10	1.100	-1.058	0.156
Price2	1	5	3.97	0.879	-0.734	0.413
Price3	1	5	3.97	0.906	-0.618	-0.066
Price4	1	5	4.00	0.807	-0.773	0.846
Location 1	1	5	3.67	1.080	-0.488	-0.510
Location2	1	5	3.66	0.908	-0.368	-0.081
Location 3	1	5	3.73	0.904	-0.431	-0.039
Location4	1	s	3.77	0.886	-0.637	0.390

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From the Table 2, The inter-construct correlations among constructs are calculated; the maximum correlation is 0.72, the minimum is 0.27, and the correlation values are positive.

Table 2: Inter-construct correlations								
Constructs	1	2	3	4	5	6	7	8
1.Environment	1.00							
2. Food Quality	0.52	1.00						
3. Location	0.45	0.49	1.00					
4. Loyalty	0.43	0.41	0.46	1.00				
5. Price	0.41	0.49	0.45	0.30	1.00			
6. Service Quality	0.57	0.66	0.52	0.52	0.47	1.00		
7. Satisfaction	0.54	0.53	0.48	0.54	0.49	0.57	1.00	
8. Trust	0.55	0.50	0.53	0.59	0.50	0.60	0.72	1.00
9. WOM	0.44	0.42	0.50	0.74	0.27	0.52	0.51	0.52

VI. MEASUREMENT ASSESSMENT

Partial Least Square Structural Equation Modelling (PLS-SEM)

The relationship between the latent variable and their indicators is measurement model. A large segment of management research in recent years uses SEM as an analytical approach that combines the multiple regressions and factor analysis for theory testing as researched by Willaims et al., [22]

SEM has become the quasi-standard in marketing research as it allows researchers to complete theories and concepts. [23] Researchers appreciate the SEM ability to evaluate the latent variable at the observation level and test relationship between latent variables. [24] SEM based approaches provide the researcher with the flexibility of performing the following tests such as Model prediction with multiple predictors and criterion variables; Construct unobserved latent variable; Model errors in measurement for observed variables and Statistically test a priori theory.[25]

SEM has two approaches, i.e., the covariance and components based SEM. The other name for components based SEM is Partial least Square SEM. Even though the covariance SEM dominates during the early stage, the PLS-SEM has begun particularly in the marketing domain. A line of argument in favour of PLS; useful for small sample size, complex models, less distributional assumptions and use for formative index containing models. [26] The PLS SEM algorithm is based on re-sampling method like bootstrapping, and the number of bootstrap samples is 2000.[27] PLS can be a powerful statistical tool because of the minimal demand on measurement scale and can use for theory confirmation.[25] The model identification is not a serious problem for a recursive model. For estimating the models, the study used PLS-SEM and the software is Smart PLS 3.2.3. [28] The reason for choosing the PLS-SEM in this study is due to non-normal data and complex models. One advantage of PLS analysis is that both measurement and structural can be performed with the same software.

Reliability and Validity

A core requirement of theory building and testing is reliability and validity. [12] Classical test theory suggests that for a construct to have psychometric properties should possess validity and reliability.[29] The classical test theory suggest that the reliability has observed score X as made up of two independent components: true score (O) and Error score (E) and, therefore reliability = Variance of observed score (X)/variance of true score (O) and the value of reliability, will in the range of 0 to 1. The reliability is assessed using Cronbach alpha, and the reliability of constructs have value which is above the cut-off 0.7 and thus, the constructs possess reliability. [30]



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Construct validity is "the degree to which instruments truly measure the constructs which they are intended to measure". [31] The construct validity commonly split into two forms of validity namely convergent and discriminant validity. The convergence is measurement and differentiation in constructs, and the measurement occurs when items used to measure a construct are "highly inter-correlated among themselves and uniform" .[32] The convergent validity is examined by estimating the Average Variance Extracted (AVE) and with the minimum cut-off value of 0.5. [33] The study constructs have AVE, which is above 0.5, suggests that the constructs have convergent validity. The factor loadings of the items are close to 0.7, and above 0.7 imply that the construct has sufficient convergent validity. Discriminant validity is calculated using Hetero Trait MonoTrait (HTMT) ratio used recently in PLS-SEM or variance based SEM. [34] HTMT can be defined as a ratio of the average correlations between constructs to the geometric mean of the average correlations between items of the same construct, [34] and the cut-off value is 0.85. The HTMT ratio of 0.85 is ideal, and the constructs in the study have less than 0.85 indicate that the constructs form the study possess discriminant validity.

Table 3. Hypothesised Path results						
Paths	Original Sample (O)	Sample Mean (M)	Standard Deviation	t Statistics	P Values	Hypotheses Accepted
Food Quality \square Satisfaction (H ₁)	0.121	0.121	0.047	2.574	0.010	Accepted
Service Quality Satisfaction (H ₂)	0.207	0.209	0.047	4.413	0.000	Accepted
Price \Rightarrow Satisfaction (H ₃)	0.190	0.191	0.043	4.465	0.000	Accepted
Location $rightarrow$ Satisfaction (H ₄)	0.121	0.122	0.037	3.234	0.001	Accepted
Environment \Box Satisfaction (H ₅)	0.228	0.226	0.043	5.356	0.000	Accepted
Food Quality \Box Trust (H ₆)	-0.002	-0.002	0.040	0.052	0.958	Not accepted
Service Quality = Trust (H7)	0.253	0.254	0.041	6.173	0.000	Accepted
Price \implies Trust (H_{δ})	0.133	0.134	0.034	3.947	0.000	Accepted
Satisfaction \Rightarrow Trust (H ₉)	0.508	0.507	0.034	15.156	0.000	Accepted
Satisfaction ⊐Loyalty (H ₁₀)	0.080	0.081	0.039	2.051	0.040	Accepted
Trust $rightarrow$ Loyalty (H ₁₁)	0.328	0.329	0.052	6.335	0.000	Accepted

From the Table 3, All the paths proposed in the hypothesised model are significant as the p values are less than 0.05, except for one. Since PLS do not have a comprehensive model fit analysis unlike the covariance-based SEM, we rely on Standardised Root Mean Square Residual (SRMR), R^2 and effect size. The SRMR for the PLS analysis uses composite model. The SRMR is defined as the difference between the observed correlation and the predicted correlation, and the value of SRMR should be < 0.08, which indicates good fit. [35] The value of SRMR of the study model is 0.04 indicate excellent model fit with the data.



Beta Value and T Value in the Model as per the hypothesised path:

Predictive Relevance (\mathbf{Q}^2): The predictive relevance of the manifest variables to its latent construct was assessed through \mathbf{Q}^2 measure. The predictive relevance values are above zero (\mathbf{Q}^2 >0) which you can find in Table 4. Therefore, the endogenous constructs in the model have predictive relevance.[23]

Constructs	SSO	SSE	Predictive relevance
Environment	2,372.00	2,372.00	
Food Quality	3,558.00	3,558.00	
Location	2,372.00	2,372.00	
Loyalty	2,372.00	1,288.60	0.457
Price	2,372.00	2,372.00	
Service Quality	3,558.00	3,558.00	
Satisfaction	2,372.00	1,672.77	0.295
Trust	2,372.00	1,420.04	0.401
Word of Mouth Communication	1,779.00	1,343.12	0.245

 Table 4. Predictive relevance

Common Method Bias (CMB): The self-report is a common practice in management and organizational research, and it has some pitfall. [36] Common Method Variance (CMV) has shown to bring in the systematic bias into the study by artificially increasing or decreasing the correlations and thus affect the final conclusions of the study. [37] To avoid, it will be difficult, but the best possible way is to minimise the threat due to self-reporting. This bias is due to methods adopted in the research and it is called as common method bias. There are two possible ways to treat the CMB, the pre-hoc and the post hoc. The strategies adopted during the pre hoc are mixing the questions in the questionnaire; so that the questions are arranged randomly. The post hoc strategies are statistical tools employed to understand the extent and to control the effect due to common method bias. One of the widely used statistically tests is Harman's single factor test to address the common method variance. All the items of the study are loaded into a single factor, with no rotation and examining the results of exploratory factor analysis [8, 36] using SPSS 21. The basic premises of the technique are that substantial amount of variance will be present with a single factor, or a general factor will account for majority of the variances. However with these limitations, this technique can be used as diagnostic tool to assess the CMV. [8] The total variance extracted is much below the cut-off of 50%, i.e., 38% and imply that the CMB is not a threat to this study.

Table 5 : Harman's Single Factor Test (Total Variance Explained)

Initial Eigenvalues			Extraction Sums of Squared Loadings			
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.401	38.503	38.503	15.401	38.503	38.503
2	3.078	7.696	46.199			

Model Fit: The Global Goodness of fit (GOF) is estimated as the geometric mean of the average communality and average R^2 for endogenous variables. [38] The global goodness of fit for this model is 0.605and is much

above the cut-off 0.336 (GoF_{Small}=0: 10, GoF_{Medium}=0: 25, GoF_{Large}=0: 36). $GoF = \sqrt{AVE} \times \sqrt{R^2} = 0.605$

Multi Group Analysis (MGA)

Researchers are often interested in comparing PLS path models across more than two groups to check whether different parameter estimate occurs for each group. This is called as multi-group analysis, equivalence or invariance analysis. Heterogeneity exists when two or more groups of respondents exhibit significant differences in their model relationships.

The MGA is particularly useful when a measuring instrument operates equivalently across different populations, theoretical construct equivalent across populations and certain path in a specified casual structure equivalent across populations. Though PLS assumes the homogeneity; but heterogeneity is a reality.

The respondents are selected from four chains of restaurants in Tamil Nadu with adequate samples from each restaurant, and this prompt to test the model values changes across the groups. The multi-group analysis performed in the study and the following are the group names and the sample size for each group is given in Table 6, and the sample size is sufficient for PLS analysis. The finite mixture is an established method in PLS when there is an established heterogeneity [26] and wants to find an existence of a group difference or the heterogeneity; the multi-group analysis can be useful analytical technique.

S No	Restaurant (Group) name	Sample size	Coded as
1	Saravana Bhavan	150	1
2	Vasanth Bhavan	148	2
3	Hot Chips	145	3
4	Sangeetha	150	4

Table 6. Multi Group analysis

Hypothesized Paths	Path Coefficients-difference	P value	Significant/Not Significant
Environment -> Satisfaction	0.047	0.339	Significant
Food Quality -> Satisfaction	0.266	0.978	Non-Significant
Food Quality -> Trust	0.036	0.620	Significant
Location -> Satisfaction	0.029	0.612	Significant
Price -> Satisfaction	0.137	0.108	Significant
Price -> Trust	0.094	0.828	Significant
Service Quality -> Satisfaction	0.150	0.123	Significant
Service Quality -> Trust	0.144	0.119	Significant
Satisfaction -> Loyalty	0.092	0.772	Significant
Satisfaction -> Trust	0.035	0.657	Significant
Trust -> Loyalty	0.149	0.122	Significant

Table 7. Group Analysis between Saravana Bhavan and Vasanth Bhavan

Most of the path-coefficients of hypothesized path in the model for two groups i.e., Saravana Bhavan and Vasanth Bhavan are same. It means they are significant, except for two paths whose p values are above 0.95, are non-significant, as shown in the table 7. The path between "food quality and satisfaction" is non-significant, clearly imply that these chains of restaurants are different on these two casual paths. The "food quality and satisfaction" is not same for these two restaurants, which is possible due to the different food quality.

Table 6. Group Analysis between Saravana bhavan and fiot Chips						
Hypothesized Paths	Path Coefficients-difference	p value	Significant/Not Significant			
Environment -> Satisfaction	0.078	0.730	Significant			
Food Quality -> Satisfaction	0.054	0.662	Significant			
Food Quality -> Trust	0.049	0.653	Significant			
Location -> Satisfaction	0.069	0.257	Significant			
Price -> Satisfaction	0.176	0.035	Significant			
Price -> Trust	0.058	0.292	Significant			
Service Quality -> Satisfaction	0.034	0.597	Significant			
Service Quality -> Trust	0.136	0.859	Significant			
Satisfaction -> Loyalty	0.035	0.614	Significant			
Satisfaction -> Trust	0.175	0.051	Significant			
Trust -> Loyalty	0.050	0.650	Significant			

 Table 8 . Group Analysis between Saravana Bhavan and Hot Chips

The MGA results show that all only the paths are significant (refer Table 12). This signifies that these constructs are same between these chains of restaurants.

Hypothesized Paths	Path Coefficients-difference	p value	Significant/Not Significant
Environment -> Satisfaction	0.095	0.210	Significant
Food Quality -> Satisfaction	0.054	0.652	Significant
Food Quality -> Trust	0.012	0.457	Significant
Location -> Satisfaction	0.091	0.824	Significant
Price -> Satisfaction	0.186	0.045	Significant
Price -> Trust	0.170	0.964	Significant
Service Quality -> Satisfaction	0.071	0.305	Significant
Service Quality -> Trust	0.092	0.222	Significant
Satisfaction -> Loyalty	0.213	0.940	Significant
Satisfaction -> Trust	0.039	0.396	Significant
Trust -> Loyalty	0.073	0.321	Significant

Table 9. Group Analysis between Saravana Bhavan and Sangeetha Veg Restaurant

From the Table 8 & 9, The MGA results show that all only the paths are significant. This signifies that these constructs are same between these chains of restaurants.

1	v		1
Hypothesized Paths	Path Coefficients-difference	p value	Significant/Not Significant
Environment -> Satisfaction	0.125	0.843	Significant
Food Quality -> Satisfaction	0.212	0.053	Significant
Food Quality -> Trust	0.013	0.542	Significant
Location -> Satisfaction	0.098	0.172	Significant
Price -> Satisfaction	0.039	0.366	Significant
Price -> Trust	0.152	0.076	Significant
Service Quality -> Satisfaction	0.184	0.890	Significant
Service Quality -> Trust	0.280	0.990	Non-Significant
Satisfaction -> Loyalty	0.057	0.321	Significant
Satisfaction -> Trust	0.210	0.026	Significant
Trust -> Loyalty	0.199	0.949	Significant

Table 10. Group Analysis between Vasanth Bhavan and Hot Chips

From the table 10, These two restaurants are significant with seven paths in the models. This suggests that the chains of restaurants almost remain the same with respect to those paths. However, the path between "service quality and trust" is non-significant. This path is non-significant for these two chains of restaurants. It means they are different for these two chains of restaurants.

Table 11 . Group Analysis between Vasanth Bhavan and Sangeetha Veg Restaurant

Hypothesized Paths	Path Coefficients- difference	p value	Significant/Not Significant
Environment -> Satisfaction	0.048	0.336	Significant
Food Quality -> Satisfaction	0.212	0.069	Significant
Food Quality -> Trust	0.048	0.333	Significant
Location -> Satisfaction	0.062	0.744	Significant
Price -> Satisfaction	0.049	0.353	Significant
Price -> Trust	0.076	0.789	Significant
Service Quality -> Satisfaction	0.079	0.725	Significant
Service Quality -> Trust	0.053	0.675	Significant
Satisfaction -> Loyalty	0.121	0.830	Significant
Satisfaction -> Trust	0.074	0.279	Significant
Trust -> Loyalty	0.076	0.727	Significant

In table 11, The path difference coefficients are significant for all the paths, this means that the variables act the same way for both these chains of restaurants.

i v	Path Coefficients-difference		0
Hypothesized Paths	Path Coefficients-difference	p value	Significant/Not Significant
Environment -> Satisfaction	0.173	0.089	Significant
Food Quality -> Satisfaction	0.000	0.502	Significant
Food Quality -> Trust	0.061	0.304	Significant
Location -> Satisfaction	0.159	0.943	Significant
Price -> Satisfaction	0.010	0.472	Significant
Price -> Trust	0.228	0.989	Non-Significant
Service Quality -> Satisfaction	0.105	0.246	Significant
Service Quality -> Trust	0.227	0.028	Significant
Satisfaction -> Loyalty	0.178	0.913	Significant
Satisfaction -> Trust	0.136	0.847	Significant
Trust -> Loyalty	0.123	0.197	Significant

 Table 12: Group Analysis between Hot Chips and Sangeetha Veg Restaurant

In table 12, The path difference coefficients are significant for all paths, but for the path on price to trust is not significant. This infers that the path of price to trust is different for these two chains of restaurants.

VII. CONCLUSION

This study evaluates the relationship among the following constructs in the chain of restaurants: (1) Service Quality and Customer Satisfaction, (2) Relationship Quality with Food quality, Service Quality, Price, Location and Environment, (3) Trust with Service Quality, Price, Location and Environment, (4) Relationship between Customer Satisfaction, Trust and Customer Loyalty

This study establishes a positive relationship with each other except for one construct Food quality with Trust. The overall result indicates a positive significant relation between the customer satisfaction and trust with customer loyalty. It is also found that all the five basic constructs add to the customer satisfaction. It is proven both theoretically as well as empirically. Hence, there is a positive relation between customer trust and the behavioral intentions.

The correlation values between the constructs depicted a positive value. The Composite Reliability (CR) and Average Variance Extracted (AVE) also fall above the cut-off value of 0.5. The HTMT ratio falls above the cut-off value of 0.8 which indicates that the study has discriminant validity. In the Exploratory Factor Analysis, most of the factor loadings showed above 0.7 except for two variables which also lie well above 0.6 hence none of the variables were deleted from the study. The hypothesized path also showed significant result for all the paths except for the path between food quality and trust. With regard to the model fit the SRMR have been considered and the value of it is 0.04 which is well below the threshold of 0.08 and hence, the model fits with the data collected. The R Square value also proves the model fit of the data. The mediation analysis also suggests that there is mediation effect of relationship quality between customer behavior and customer loyalty.

Multi-Group Analysis is performed on the data set. This showed that the chain of restaurants showed insignificance when the constructs showed individuality for that particular chain of restaurant. It is not the same for all the chains of restaurants. The chains of restaurants need to address to their area of weakness and strengthen those constructs which might affect the loyalty of the customer. Only then the chains of restaurants can succeed in this competitive scenario by creating more loyal customers.

LIMITATIONS

The study has considered a theoretical perspective and every perspective is a perspective which cannot complete. The judgment sampling method was used albeit there are better methods available. Customers of only four chains of restaurants have been considered from the state of Tamil Nadu, India. If all the chains of restaurants have been considered may be the result may not be the same as arrived. May be many number of chains of restaurants considered all over India would give a detailed study in this country as a whole. Since the data is self-reporting, common method bias could be a problem. However the study performed the Harman's single factor test and found it is not a threat.

MANAGERIAL IMPLICATIONS

It is crystal clear that all the constructs are essential to achieve a satisfied customer. It is only when a customer is highly satisfied the trust develops and the positive word of mouth improves. All these lead to enhancing customer loyalty. This solves the most crucial question in the chains of restaurants: "How to retain the customers?" The management has to be cautious about the food quality, service quality, pricing, location, and environment as these are the important areas to concentrate on the improvement of the customer satisfaction, trust, positive word of mouth. Only then the customer loyalty will be improving.

REFERENCES

- [1]. Sah S, and Dr. Banerjee N. A Comparative Study of Consumer's Perception of Service Quality Dimensions between Public and Private Banks in India. International journal of Business Administration 2012; 3(5): 33-44.
- Reeves C, and Hoy F. Employee Perceptions of Management Commitment and Customer Evaluations of Quality Service in Independent firms. Journal of small business management 1993; 52-59.
- [3]. Singh J, and Sirdeshmukh D. Agency and Trust Mechanisms in Consumer Satisfaction and Loyalty Judgements. Journal of the Academy of Marketing Science 2000; 28(1): 150-167.
- [4]. Hyun S.S. Predictors of Relationship Quality and Loyalty in the Chain Restaurant Industry. Cornell hospitality quarterly 2010; 51(2): 251-267.
- [5]. Urban W. Customer's Experiences as a Factor Affecting Perceived Service Quality. Journal of Economics and Management 2010; 15: 820-826.
- [6]. 6] Parasuraman A, Zeithaml VA and Berry L L. A Conceptual Model of Service Quality and its Implications for Future Research. Journal of marketing 1985; 49: 41-50.
- [7]. Vanniarajan T and Meharajan T. Dineserv: A Tool for Measuring Service Quality in Restaurants. Journal of Marketing and communication 2012; 8(2).
- [8]. 8] Churchill Jr G A and Surprenant C. An Investigation in to the Determinants of Customer Satisfaction. Journal of Marketing Research 1986; 491-504.
- [9]. Boltan RN and Drew J H. A Multi-Stage Model of Customers Assessments of Service Quality and Value. Journal of Consumer Research; 17 (4): 375-384.
- [10]. Kandampully J.Service Quality to Service Loyalty: A Relationship which goes beyond Customer Services. Total Quality Management 1998; 9(6): 431-443.
- [11]. Shahin A and Janatyan N. Estimation of Customer dissatisfaction based on Service Quality gaps by Correlation and Regression Analysis in a Travel Agency. International Journal of Business and Management 2011; 6(3): 99-108.
- [12]. Khalid S, Mahmood B, Abbar M and Hussain S. Customer Satisfaction with Service Quality in Conventional Banking in Pakistan: The Case of Faisalabad. International Journal of Marketing Studies 2011; 3(4): 165-174.
- [13]. Agyapong G K Q. The Effect of Service Quality on Customer Satisfaction in the Utility Industry A Case of Vodafone (Ghana). International Journal of Business and Management 2011; 6(5): 203- 210.
- [14]. Ravichandran K, Tamil Mani M, Arunkumar S and Prabhakaran S. Influence of Service Quality on Customer Satisfaction Application of Servqual Model. International Journal of Business and Management 2010; 5(4): 117-124.
- [15]. Namkung Y and Jang S C. Does Food Quality Really Matter In Restaurants? Its Impact on Customer Satisfaction and Behavioural Intentions. Journal of Hospitality and Tourism Research 2007; 31(3): 387-409.
- [16]. Gronholdt L, Martensen A and Kristensen K. The Relationship between Customer Satisfaction and Loyalty: Cross industry differences. Total Quality Management 2010; 11(4-6): 509-514.
- [17]. Sulin B A, Paul A and Pavlou P A. Evidence of the effect of trust building technology in electronic markets : Price Premiums and buyer behaviour. MIS Quarterly 2002; 26(3): 243-268.
- [18]. Ribbink D, Riel A C R V, Lijander V and Stereukens S. Comfort Your Online Customer: Quality, Trust and Loyalty on the Internet. Management Service Quality: An International Journal 1991; 14(6): 446-456.
- [19]. Rahman M S, Khan A H and Haque M Md. A Conceptual Study on the Relationship Between Service Quality towards Customer Satisfaction : Servqual and Gronroos's Service Quality Model Perspective. Asian Social Science Journal; 8(13):201-210.
- [20]. James A C and David G W. Structural Equation Modeling In Practice: A Review and Recommended Two-Step Approach. Psychological bulletin 1988; 103(3).
- [21]. Williams L J, Vandenberg R J, and Edwards J R.Structural Equation Modeling In Management Research: A Guide for Improved Analysis. The Academy of Management Annals 2009; 3(1): 543-604.
- [22]. Hair Jr J F, Hult G T M, Ringle, Christian and Marko S. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage Publications 2013.
- [23]. Bollen and Kenneth A. Structural Equations with Latent Variables. Series in Probability and Mathematical Statistics: New York. Wiley 1989.
- [24]. Chin and Wynne W. The Partial Least Squares Approach to Structural Equation Modeling. Modern methods for business research 1998; 295(2): 295-336.
- [25]. Sarstedt, Marko, Ringle, Christian M and Hair J F. PLS-SEM: Looking Back and Moving Forward. Long Range Planning 2014; 47(3):132-137.
- [26]. Esposito, Vincenzo V, Chin W W, Henseler J and Wang H. Handbook of Partial Least Squares: Concepts, Methdos and Applications: Berlin Heidelberg. Springer 2010.
- [27]. Ringle, Christian M, Wende, Sven and Becker J M.SmartPLS. SmartPLS Hamburg 2014.
- [28]. Novick M.R. The Axioms and Principal Results of Classical Test Theory. Journal Of Mathematical Psychology 1966; 3(1): 1-18.
- [29]. Nunnally Jum C, Bernstein Ira H and Berge J M F T. Psychometric Theory. McGraw-Hill New York 1967; 226.
- [30]. Paul P J. Construct Validity: A Review of Basic Issues and Marketing Practices. Journal of Marketing Research 1981; 18(2): 133-145.
- [31]. Bacharach and Samuel B. Organizational Theories: Some Criteria for Evaluation. Academy of management review 1989; 14(4): 496-515.
- [32]. Fornell, Claes and Larcker D F. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of marketing research 1981: 39-50.
- [33]. Voorhees Clay M, Brady Michael K, Calantone, Roger and Ramirez E. Discriminant Validity Testing in Marketing: An Analysis, Causes for Concern, and Proposed Remedies. Journal of the Academy of Marketing Science 2015: 1-16.
- [34]. Hu, Li-tze and Bentler P M. Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification. Psychological methods 1998; 3(4): 424.
- [35]. Podsakoff P M and Organ D W. Self-Reports in Organizational Research: Problems and Prospects. Journal of Management 1986; 12(4): 531-544.
- [36]. Reio T G. The Threat of Common Method Variance Bias to Theory Building. Human Resource Development Review 2010; 9(4): 405-411.
- [37]. Tenenhaus M, Vinzi, Vincenzo E, Chatelin, Yves M and Lauro C. PLS Path Modeling. Computational statistics & data analysis 2005; 48(1): 159-205.
- [38]. Preacher K J and Hayes A F. SPSS And SAS Procedures for Estimating Indirect Effects in Simple Mediation Model. Behavior Research Methods, Instruments, & Computers 2004; 36(4): 717-731.
- nandhini R, Assistant Professor." Mediation Analysis In Chains Of Restaurants In Tamilnadu State." International Journal of Business and Management Invention (IJBMI), vol. 07, no. 04, 2018, pp. 57–67.